



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2021-0036; FRL-10151-01-R4]

Air Plan Approval; North Carolina; Source Testing and Monitoring

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA or Agency) is proposing to approve changes to the North Carolina State Implementation Plan (SIP), submitted by the State of North Carolina through the North Carolina Department of Environmental Quality, Division of Air Quality (NCDAQ), through a letter dated October 9, 2020. The SIP revisions include changes to NCDAQ's regulations regarding monitoring and performance testing for stationary sources of air pollution. EPA is proposing to approve these changes pursuant to the Clean Air Act (CAA or Act).

DATES: Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R04-OAR-2021-0036 at [regulations.gov](https://www.regulations.gov). Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file

sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets>.

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SUPPLEMENTARY INFORMATION:

I. What Action is EPA Proposing?

EPA is proposing to approve changes to North Carolina's SIP that were provided to EPA via a letter dated October 9, 2020, regarding 15A North Carolina Administrative Code (NCAC) Subchapter 02D, Section .0600, *Air Contaminants; Monitoring; Reporting*, and Section .2600, *Source Testing*.¹ Specifically, EPA is proposing to approve changes to the following: under Section .0600, .Rules .0607, *Large Wood and Wood-Fossil Fuel Combination Fuels*; .0608, *Other Large Coal or Residual Oil Burners*; .0610, *Federal Monitoring Requirements*; .0612, *Alternative Monitoring and Reporting Procedures*; and .0613, *Quality Assurance Program*; and under Section .2600, Rules .2603, *Testing Protocol*; .2604, *Number of Test Points*; .2605, *Velocity and Volume Flow Rate*; .2606, *Molecular Weight*; .2607, *Determination of Moisture Content*; .2608, *Number of Runs and Compliance Determination*; .2610, *Opacity*; .2612, *Nitrogen Oxide Testing Methods*; .2613, *Volatile Organic Compound Testing Methods*; and .2614, *Determination of VOC Emissions Control System Efficiency*. Additional details on these changes, as well as EPA's rational for proposing approval of these changes is found in the next section.

¹ EPA notes that the Agency received several submittals seeking to revise the North Carolina SIP transmitted with the same October 9, 2020, cover letter. EPA will be considering action for these other SIP revisions, including certain 02D Section .0600 and Section .2600 rules not considered in this proposed action, in separate rulemakings.

II. EPA's Analysis of the State's Submittal

A. Changes to 02D Section .0600

The October 9, 2020, SIP revision modifies several rules under 02D Section .0600, *Monitoring: Recordkeeping: Reporting*. Rule 02D .0607, *Large Wood and Wood-Fossil Fuel Combination Units*, includes mostly minor language and formatting changes that do not alter the meaning of the provision. The other Section .0600 rules that are proposed for approval are discussed in more detail hereinafter.

Rule 02D .0608, *Other Large Coal or Residual Oil Burners*, is revised at paragraph .0608(e) to change the requirement that the minimum of four data points in a valid hour of monitoring be equally spaced to instead require that each 15-minute quadrant of the given hour contain at least one of the four minimum data points. This change was made to be consistent with similar changes made to EPA's 40 CFR parts 60 and 75 continuous monitoring requirements.² The change will better represent emissions across the whole hour in which a unit operates because, otherwise, it is possible for equally spaced data points to be distributed in such a way that a majority of the hour is not accounted for (e.g., if the four minimum data points are equally-spaced five minutes apart at the beginning of the hour, which would leave more than half of the hour without data points). Using the revised scheme, the minimum of four data points will account for operation throughout the hour. Additionally, this paragraph adds language explaining that opacity monitoring is exempted from the requirement to obtain at least one data point in each 15-minute quadrant per hour. The exception for opacity monitoring is simply a clarification of the new requirement because the continuous opacity monitoring for certain units prescribed elsewhere (e.g., 02D .0606, .0607) uses a different scheme for collecting and averaging data, such as a 6-minute averaging time instead of an hour. However, paragraph .0608(e) concerns monitoring for sulfur dioxide (SO₂), so the reference to opacity is not necessary and does not modify any existing requirements for opacity monitoring. Finally, under

² See, for 40 CFR part 75, 60 FR 26510 (May 17, 1995), and for 40 CFR part 60, 72 FR 32710 (June 13, 2007).

paragraph .0608(j)), the State adds Method 6C from appendix A to 40 CFR part 60 and a reference to North Carolina Rule 15A NCAC 02D .2600, *Source Testing*, for emissions testing conducted for compliance with the SO₂ standard. The inclusion of Method 6C matches SIP-approved Rule 02D .2611, *Sulfur Dioxide Testing Methods*, which requires combustion sources that demonstrate compliance with the SO₂ standard through stack sampling to use the procedures of Method 6 or Method 6C. The October 9, 2020, submittal also includes ministerial and clarifying revisions to Rule 02D .0608.

Rule 02D .0610, *Federal Monitoring Requirements*, is modified by, among other things, adding new cross-references to the applicability section of the rule at paragraph (a). The changes add paragraph .0610(a)(5) which cross-references the Cross-State Air Pollution Rule at 40 CFR part 97 and adds Generally Available Control Technology (GACT) to the existing cross-reference of 40 CFR part 63 in paragraph .0610(a)(3). The purpose of Rule .0610 is not to incorporate the Federal requirements by reference, but rather to require sources with air pollutants that do not have applicable monitoring, recordkeeping, and reporting requirements under the Federal rules listed, or sources which are not subject to monitoring, recordkeeping, or reporting requirements set forth in the rules identified in paragraph .0610(a), to comply with the requirements of Rule 02D .0611, *Monitoring Emissions from Other Sources*. The October 9, 2020, submittal also includes ministerial and clarifying revisions to Rule 02D .0610.

Rule 02D .0612, *Alternative Monitoring and Reporting Procedures*, includes mostly ministerial and formatting changes. The SIP revision also modifies paragraph (b) by adding 40 CFR parts 62 and 97 to the list of Federal rules with monitoring requirements to which this rule and its procedures for alternatives do not apply. Additionally, in paragraph .0612(c), specifically under subparagraphs .0612(c)(7)(B) and (D), North Carolina removes the terms “significantly” and “significant,” respectively, from the list of conditions an owner or operator must show to qualify for alternative recordkeeping or monitoring. As explained by NCDAQ, the revised provisions retain the same broad authority as currently in the SIP for the determination on

whether alternative monitoring or data reporting is appropriate for different designs and operating characteristics. NCDAQ also explained that these changes do not adversely affect its enforcement authority.³

Paragraph .0612(e) establishes the minimum criteria for approval of a petition for alternative monitoring or reporting, and the SIP revision includes mostly ministerial and formatting changes. Under paragraph (e)(3), North Carolina removes the qualifying phrase “with reasonable certainty” from the requirement that alternative monitoring and reporting must provide information of sufficient quality to determine “with reasonable certainty” the amount of emissions or the adequacy of a control device or practice in order to be approvable by the Director. Removing this phrase does not negatively impact the quality of information that would be collected with alternative monitoring or reporting procedures. In addition, under paragraph .0612(e) the Director can only approve petitions for alternatives that include the information required under paragraph .0612(c), which requires the petition to include “a demonstration that the alternative procedure is at least as accurate as that prescribed by the rule” at (c)(6), and satisfy the showing required in .0612(c)(7).

Finally, Rule 02D .0613, *Quality Assurance Program*, includes mostly ministerial, formatting, and clarifying changes. Paragraph .0613(c) is also revised to add a reference to 40 CFR part 60, appendix F, Procedure 3, *Quality Assurance Requirements for Continuous Opacity Monitoring Systems at Stationary Sources*. The SIP-approved paragraph .0613(c) states that continuous opacity monitoring systems (COMS) may satisfy the requirements of paragraph .0613(a) by complying with Method 203 to Appendix M of Part 51 as proposed in 57 FR 46114 (October 7, 1992). However, the procedures proposed for Method 203 were never finalized in 40 CFR part 51 and have since been rewritten as Procedure 3 of Appendix F to Part 60.⁴ See 79

³ Email correspondence from NCDAQ to EPA dated August 1, 2022, explaining these changes can be found in the docket for this proposed action.

⁴ Method 203 was originally Methods 203A, 203B, and 203C, found at 40 CFR part 51, appendix M, Section 9.0. These paragraphs have since been “reserved” and rewritten under Procedure 3.

FR 28493 (May 16, 2014). Updating Rule 02D .0613(c) to allow COMS to comply with Method 203 or 40 CFR part 60, appendix F, Procedure 3 to satisfy paragraph .0613(a) is appropriate because Procedure 3 contains the current Federal quality assurance procedures for continuous opacity monitoring.

SIP-approved paragraph .0613(b) states that the Director may require the owner or operator of a facility required to operate a monitoring device under Subchapters 02D or 02Q to submit a quality assurance program if the criteria in .0613(b)(1) through (3) are met. The SIP revision changes the phrase “the Director may” to “the Director shall” and changes the phrase “quality assurance program” to “a description of the quality assurance program.” SIP-approved paragraph .0613(g) states that a quality assurance program shall be available on-site for inspection within 30 days of monitor certification. The SIP revision also changes the phrase “quality assurance program” to “a description of the quality assurance program” in this paragraph.

Although the change to “a description of the quality assurance program” may alter the name of the required document, NCDAQ explained that the materials that this document must contain remain the same, as detailed in paragraph .0613(c) and more specifically in .0613(c)(1) through (7).⁵ Therefore, there is no substantive change to paragraph (g), and the overall change to paragraph .0613(c) is strengthening because the Director must now require owners and operators of subject facilities to submit the material in paragraph .0613(c).

B. Changes to 02D Section .2600

The October 9, 2020, SIP revision modifies the rules under 02D Section .2600, *Source Testing* identified in section I of this document. The following rules include only minor language and formatting changes that do not alter the meaning of the provisions: Rule 02D

⁵ Email correspondence from NCDAQ to EPA dated August 1, 2022, explaining this change can be found in the docket for this proposed action.

.2604, *Number of Test Points*;⁶ Rule 02D .2605, *Velocity and Volume Flow Rate*; Rule 02D .2607, *Determination of Moisture Content*; Rule 02D .2612, *Nitrogen Oxide Testing Methods*; and Rule 02D .2614, *Determination of VOC Emission Control System Efficiency*. The other .2600 rules that are proposed for approval are discussed in more detail hereinafter.

The October 9, 2020, submittal transmits changes to Rule 02D .2603, *Testing Protocol*, at paragraph .2603(a) by adding the following to the information that must be included in test protocols: .2603(a)(1) – facility and testing company contact information; .2603(a)(2) – the permit number and permitted source’s name and identification number; .2603(a)(6) – test audit requirements applicable to the proposed test method; .2603(a)(8) – the maximum process rate, maximum normal operation process rate, and the proposed target process rate for the test; and .2603(a)(10) – a proposed test schedule. The October 9, 2020, submittal also includes ministerial revisions such as renumbering the existing requirements.

Next, Rule 02D .2606, *Molecular Weight*, requires the application of Method 3 of Appendix A, 40 CFR part 60 to determine molecular weight of gases, with certain exceptions under paragraph .2606(b). The revised rule includes minor edits and rewording, as well changes to the exceptions in .2606(b). The current SIP-approved subparagraph .2606(b)(2) requires that “[a]t least four samples shall be taken during a one-hour test run, but as many as necessary shall be taken to produce a reliable average.” The phrase “but as many as necessary shall be taken to produce a reliable average” from the end of this provision would be removed under the proposed revision. This change does not negatively impact the reliability of molecular weight determinations.

As provided in paragraph .2606(a), Method 3 of Appendix A to 40 CFR part 60 is still used to determine molecular weight of the gas being sampled, with the exceptions presented in

⁶ Rule 02D .2604, under paragraph (b)(1), provides procedures for testing using Method 1 of Appendix A of 40 CFR part 60, when multiple exhaust pipes or ducts are present. This rule previously described the multiple pipes or ducts as “breechings” but are now being referred to as “ducts.” Approval of this change into the SIP would not substantively alter the testing requirements of this rule because the terms “ducts” and “breechings” describe the same components in testing installations.

paragraph .2606(b). Method 3 requires sampling and analysis of the sample for percent carbon dioxide (CO₂) and oxygen (O₂) to determine molecular weight, and this process of sampling and analysis must be repeated until the molecular weight calculated from three samples achieves a specified variance from the mean.⁷ The final molecular weight reported is the average of those three molecular weights. However, Method 3 only requires obtaining the concentration of CO₂ and O₂ needed to calculate molecular weight once per cycle of analysis and molecular weight calculation. North Carolina's Rule 02D .2606 requires that when an instrument, such as the Bacharach Fyrite, is used instead of the grab sample technique to calculate CO₂ concentration, at least four samples must be taken to account for variations in the CO₂ concentrations and those four samples must be taken during a one-hour test. This means that, if using an instrument, at least four samples are needed per cycle of analysis and molecular weight calculation. Additionally, Rule .2606(a) still requires sampling, analysis, and calculation procedures to be repeated until the variance specified in Method 3 is achieved to ensure reliability. Thus, North Carolina's revised rule continues to ensure that molecular weight testing will produce reliable determinations and remains at least as stringent as the Federal method.

Rule 02D .2608, *Number of Runs and Compliance Determination*, is changed to require that the three test runs required must be consecutive and completed at the same operating condition. It is also changed to provide that if other operating conditions or scenarios are to be tested, three consecutive test runs are required for each of those conditions or scenarios. The October 9, 2020, submittal also includes formatting and minor clarifying revisions to Rule 02D .2608.

Rule 02D .2610, *Opacity*, establishes methods to determine compliance with opacity standards and is modified to clarify that Method 22 in Appendix A to 40 CFR part 60 is based upon the frequency of fugitive emissions that are "visible during the observation period." The

⁷ As noted in Method 3, molecular weight is calculated by determining the concentration of CO₂, O₂, N₂, and CO in the sample but the sample is only analyzed for CO₂ and O₂. The amount of N₂ and CO is determined by subtracting the sum of the percent CO₂ and percent O₂ from 100 percent to determine the percentage.

rule is also revised to eliminate the phrase “from stationary sources” in subparagraph .2610(b), which currently requires the use of Method 22 for compliance with opacity standards based on the frequency of fugitive emissions “from stationary sources.” This deletion does not change the meaning of the rule because Method 22 is applicable to stationary sources at part 60. The October 9, 2020, submittal also includes minor edits to the language in 02D .2610 which do not alter the meaning of the rule.

Finally, Rule 02D .2613, *Volatile Organic Compound Testing Methods*, includes clarifying edits at (c) and (d) to cross-reference the Rule 02D .0930, *Solvent Metal Cleaning*, definition of “solvent metal cleaning equipment” and the Rule 02D .0927, *Bulk Gasoline Terminals*, definition of “bulk gasoline terminals,” both of which are terms used in Rule .2613. The October 9, 2020, also transmits minor language and formatting changes that do not otherwise alter the meaning of the rule.

III. Incorporation by Reference

In this document, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference the following North Carolina rules, with a state effective date of November 1, 2019: Rule 02D .0607, *Large Wood and Wood-Fossil Fuel Combination Units*; Rule 02D .0608, *Other Large Coal or Residual Oil Burners*; Rule 02D .0610, *Federal Monitoring Requirements*; Rule 02D .0612, *Alternative Monitoring and Reporting Procedures*; Rule 02D .0613, *Quality Assurance Program*; Rule 02D .2603, *Testing Protocol*; Rule 02D .2604, *Number of Test Points*; Rule 02D .2605, *Velocity and Volume Flow Rate*; Rule 02D .2606, *Molecular Weight*; Rule 02D .2607, *Determination of Moisture Content*; Rule 02D .2608, *Number of Runs and Compliance Determination*; Rule 02D .2610, *Opacity*; Rule 02D .2612, *Nitrogen Oxide Testing Methods*; Rule 02D .2613, *Volatile Organic Compound Testing Methods*; and Rule 02D .2614, *Determination of VOC Emission Control System Efficiency*. EPA has made, and will continue to make, these materials generally available through

www.regulations.gov and at the EPA Region 4 office (please contact the person identified in the “For Further Information Contact” section of this preamble for more information).

IV. Proposed Action

EPA is proposing to approve portions of the October 9, 2020, SIP revisions to incorporate various changes to North Carolina’s source monitoring and testing provisions into the SIP. Specifically, EPA is proposing to approve various changes as described above in 02D Section .0600, *Monitoring: Recordkeeping: Reporting*, and .2600, *Source Testing*. EPA is proposing to approve these changes because they meet CAA requirements and would not interfere with any applicable requirement concerning attainment or reasonable further progress.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA’s role is to approve state choices, provided they meet the criteria of the CAA. This action merely proposes to approve state law as meeting Federal requirements and would not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);

- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: August 18, 2022.

Daniel Blackman,
Regional Administrator,
Region 4.

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